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(19)

(54) REINFORCED WOODWOOL SLAB

(71) We, MARLEY HOMES LIMITED, a British Company of, Peasmarsh, Guildford, Surrey, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention is concerned with a reinforced wood wool slab.

Wood wool slabs are panels formed by dispersing wood wool, i.e. wood shredded into a fibrous condition, in a cementaceous or plaster matrix. They may be made of sufficient structural strength to be used in an unsupported span of approximately 12 times the panel depth and to carry normal constructional roof loads. Where a greater span is required it is usual to support the sides of the slabs with steel support members.

The texture of the outer surfaces of wood wool slabs are often improved by providing a surface layer of plaster or similar material to give a smooth surface capable of further decoration if required. This treatment adds to the weight of the slabs but has no effect on its structural properties.

It is an object of this invention to provide means for reinforcing a wood wool slab to improve its load bearing properties, in particular by use of a decoratable surface finish which has stress carrying properties.

According to the present invention there is provided a wood wool slab as herein before defined having on at least one surface a reinforcing layer comprising glass fibres wholly embedded in a cementaceous or plaster matrix.

The glass fibre reinforcement may be in the form of a woven or non-woven mat of fibres, or loose fibres such as chopped strands may be randomly dispersed in the matrix. In the latter case the fibres may have a length within an approximate range of ¾ to 2 inches.

To achieve satisfactory properties we have found a reinforcing layer of at least 2-3mm to be suitable. Naturally the thickness depends to a large extent on the fibre content of the layer, the consistency of the material during application, and the required structural properties.

The reinforcing layer may be applied as a woven or non-woven mat impregnated with a cement/water mix, or a dispersion of fibres in a cement water mix, either to a wood wool slab core when the latter is freshly prepared and wet, or more usually when it is in a finished dry condition.

The use of a common binder for both the core and reinforcing layer ensures compatibility of the layers in the resulting laminate.

A typical embodiment of the invention is illustrated, by way of example only, in the accompanying drawing, which is a section through a reinforced wood wool slab.

Referring to the drawing the slab has a core 1 of fibrous shredded wood dispersed in a cementaceous binder. A typical size of the core is 6 feet × 2 feet, with a depth of approximately 2 inches. Each surface of the core is coated with a reinforcing layer 2 of glass fibres 3 dispersed in a cementaceous binder. The reinforcing layer is approximately 1/8 inch thick. The surface layer 2 may be wholly or partially continued around the edges of the slab 1 as shown at 4. The outer surface of the reinforcing layer may be given a decorative finish.

To manufacture the illustrated reinforced wood wool slab, one surface of a commercially available wood-wool slab is coated with a wet cementaceous layer. The layer may be applied by hand following traditional methods of laying mortar screeds, or mechanically by passing the slab beneath a hopper delivering the wet cementaceous material, which is then mechanically trowelled by a vibrating blade. In either

case the layer is trowelled so that the cementaceous material enters into the interstices in the surface of the slab.

A web of glass fibre fabric is then drawn from a reel adjacent the slab and embedded in the wet cementaceous layer. After the fabric has been pressed into the wet layer the surface is trowelled smooth.

Alternatively further wet material may be added over the reinforcement and then the surface is trowelled smooth.

If required a textured finish may be applied to the cementaceous layer while wet, or after drying decoration may be applied.

WHAT WE CLAIM IS:—

1. A wood wool slab as hereinbefore defined having on at least one surface a reinforcing layer comprising glass fibres wholly embedded in a cementaceous or plaster matrix.

2. A wood wool slab according to Claim 1, in which the glass fibres are in the form of a woven or non-woven web.

3. A wood wool slab according to Claim 1, substantially as described herein with reference to the accompanying drawings.

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1399402 COMPLETE SPECIFICATION

1 SHEET *This drawing is a reproduction of the Original on a reduced scale*